



Residential Single Family Dwelling Requirements

1. **Objective:** To provide homeowners and contractors the information necessary to obtain plan review and final inspection approval of single family in-fill homes.
2. **Jurisdiction:** Elk Grove CSD Fire Department's jurisdiction over single family residential homes relates to fire access, fire flow, and fire sprinklers only. "Fire access" relates to our ability to get fire apparatus close enough to a home to reach it with our fire hose and equipment. "Fire flow" relates to our access to a fire hydrant that provides sufficient gallons per minute (GPM) to suppress a fire. All of the following requirements are taken from the 2001 California Fire Code or City of Elk Grove Ordinance No. 37-2002.
3. **Definitions (See attached diagram)**
 - A. CFC – California Fire Code, 2001 Edition
 - B. Fire access lane – A paved road that provides the fire department immediate access to a building. This road must have an all weather surface (gravel is permitted for two or fewer homes only).
 - C. 150 foot hose reach – 150 feet is the maximum distance permitted from a fire access lane to all exterior portions of a home. This is required since the standard fire hose used to put out a house fire is only 150 feet long. If the fire department cannot reach entirely around the home with that 150 foot hose, then extinguishment will be delayed.
 - D. Fire apparatus turn around – A location with specific minimum dimensions designated for use by a fire apparatus to turn around. No parking is permitted in a designated fire apparatus turn around.
 - E. Private road – A road not maintained by a city or county agency.
 - F. Public road – A road maintained by a city or county agency.
 - G. Wharf fire hydrant – A fire hydrant having a single 2 ½" discharge and supplied by underground pipe less than 6 inches in diameter.
 - H. Steamer fire hydrant (Clow model 960) – A fire hydrant having one 2 ½" and one 4 ½" discharge and supplied by a minimum 6" underground pipe.



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- I. Residential Fire Sprinklers – Sprinklers designed specifically for homes that control a fire in its early stages. By controlling the fire when it is still small,

residential sprinklers maintain an environment suitable for occupants to escape and limit fire and water damage. Fire sprinklers activate individually by a heat sensitive fusible link or glass bulb, so only the sprinkler(s) nearest the fire will activate. Residential sprinklers can be color coordinated to match a home's interior and can also be mounted flush with the ceiling to make them aesthetically pleasing.
- J. Public Water Supply - Domestic use water that supplies the residence as well as fire hydrants near the home and provided by a water agency.

VI Fire Code Requirements

- A. All homes exceeding 5,999 square feet, including attached garages and solid roof patios shall be provided with fire sprinklers throughout. City of Elk Grove Ordinance 37-2002
- B. All homes exceeding 4,999 square feet livable area (not including garages and solid patios) shall be provided with fire sprinklers throughout. City of Elk Grove Ordinance 37-2002
- C. All exterior walls of homes (regardless of size) shall be within 150 feet of a fire access lane. Homes which cannot comply with the 150 foot hose reach requirement shall be provided with a fire apparatus access lane which in turn meets the 150 foot hose reach requirement. (CFC 902.2.1)
- D. Fire access lanes shall have a minimum clear width of 20 feet. For roads serving two or fewer homes only, this width may be reduced to 16 feet. (CFC 902.2.2.1)
- E. Fire access lanes exceeding 150 feet in length shall be provided with an approved turn around at the end of the fire access lane. See attached diagram for turn around dimensions. (CFC 902.2.2.4)
- F. Fire access lanes shall be:
 - 1. Residential Lots: 2 inches asphalt over 6 inches aggregate base



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2. AR 10 or less: 6 inches aggregate base or equivalent

G. An approved steamer type fire hydrant shall be located within 250 feet of the house. This distance should be measured along the route that the fire apparatus would drive from the hydrant to the house. (CCF Appendix III-A)

1. If there is no hydrant within 250 feet of the home, there are two options to mitigate the deficiency. They are as follows:
 - a. Tie in to the nearest public water main and install a fire hydrant and the associated underground pipe, or
 - b. Install residential fire sprinklers in the home.
2. If there is no public water main close enough to tie into, the only option to mitigate the absence of a fire hydrant is to install residential fire sprinklers in the home.

NOTE: If an existing fire hydrant is being used to meet this requirement, the plans shall indicate that the hydrant is a steamer hydrant. Wharf type fire hydrants (hydrants having a single 2 ½ " discharge) do not provide sufficient quantities of water and are therefore not acceptable to meet this requirement.

H. Street signs shall be installed at the start of the project. (CFC 901.4.5)

I. Address numbers shall be visible from the street and shall be illuminated at night. Numbers can be illuminated internally or they may be installed adjacent to an exterior light. (CFC 901.4.4)

4. Deadlines for fire department requirement compliance

- A. Required fire lanes shall be installed prior to any combustible construction being placed on site. This is required so that the fire department can

access the site for fire and medical emergencies that occur during construction. As soon as wood or any other combustibles are placed anywhere on site, this requirement takes effect.

- B. Required fire hydrants shall be installed, flushed, tested and fully operational prior to combustible construction being placed on site. This is required so that there will be water available for a fire that may occur during construction. If the installation of a fire hydrant is part of the scope of work, a contractor should be selected early in the project
- C. Required fire sprinklers shall be installed prior to the building department framing inspection. This is to permit an inspection and hydrostatic test of the system piping by a fire inspector while the piping is still visible. Selection of a sprinkler contractor should take place at the early stages of the project in order to ensure that the sprinkler contractor has sufficient time to have the plans reviewed/approved and the system installed. Construction will not be permitted beyond the framing stage if the sprinkler system has not passed the fire department visual inspection and hydrostatic test.
- D. Required street signage and/or address numbers shall be installed as soon as work begins on site. This is to assist the fire department in locating the home in event of a fire or medical emergency during construction. This requirement may be met with temporary signs until the permanent signs/numbers are installed.

VI Separate Submittals

- A. All gates across fire access lanes require a separate submittal and approval prior to installation.

Please Note: There are very restrictive guidelines regarding the minimum clear open width, setback distance from streets, and location of pedestrian gates. Gates across fire access lanes should not be installed prior to fire department review and approval.

- B. Propane tanks exceeding 125 gallons water capacity require a separate submittal and approval prior to installation.



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- C. Underground propane tanks require a separate submittal and approval prior to installation.